

## **COMPOSITIONS AND METHODS FOR ENHANCING CELLULAR INTERNALIZATION**

### **Abstract of the Disclosure**

Compositions and methods for improving cellular internalization of one or more compounds are disclosed. The compositions include a compound to be delivered and a biocompatible viscous material, such as a hydrogel, lipogel, or highly viscous sol. The composition also include, or are administered in conjunction with, an enhancer in an amount effective to maximize expression of or binding to receptors and enhance RME of the compound into the cells. This leads to high transport rates of compounds to be delivered across cell membranes, facilitating more efficient delivery of drugs and diagnostic agents. Compositions are applied topically orally, nasally, vaginally, rectally, and ocularly. The enhancer is administered with the composition or separately, either systemically or preferably locally. The compound to be delivered can also be the enhancer.